

CLAIMS:

1. An image display apparatus comprising:
  - a plurality of scanning wires arranged in an image display region for transmitting a scanning signal;
  - a plurality of signal wires arranged to intersect with said plurality of scanning wires in said image display region for transmitting a signal voltage;
  - a plurality of current driven electro-optical display elements each arranged in a pixel region surrounded by said scanning wires and said signal wires connected to a common power supply;
  - a plurality of driving elements arranged in said pixel region connected with said electro-optical display elements; and
  - a plurality of memory control circuits for holding said signal voltage in response to said scanning signal to control driving of said driving elements based on said held signal voltage,wherein said memory control circuit samples and holds said signal voltage while blocking a bias voltage from being applied to each of said driving elements, and subsequently applies said driving elements with said held signal voltage as said bias voltage.
2. An image display apparatus according to claim 1, wherein said power supply control element stops supplying the electric power to said driving elements.
3. An image display apparatus according to claim 1, wherein said memory control circuit comprises:
  - a main driving switch element responsive to said scanning signal to conduct for sampling said signal voltage; and

a sampling capacitor for holding the signal voltage sampled by said main sampling switch element.

4. An image display apparatus according to claim 1, wherein said memory control circuit comprises:

a main driving switch element responsive to said scanning signal to conductor for sampling said signal voltage;

a sampling capacitor for holding the signal voltage sampled by said main sampling switch element; and

an auxiliary driving switch element responsive to said scanning signal to conduct for connecting one end of said sampling capacitor to a common electrode.

5. An image display apparatus according to claim 1, wherein said current driven electro-optical display elements comprise organic LEDs.

6. An image display apparatus comprising:

a plurality of scanning wires arranged in an image display region for transmitting a scanning signal;

a plurality of signal wires arranged to intersect with said plurality of scanning wires in said image display region for transmitting a signal voltage;

a plurality of current driven electro-optical display elements arranged in a pixel region surrounded by said scanning wires and said signal wires connected to a common power supply;

a plurality of driving elements arranged in said pixel region connected with said electro-optical display elements; and

a plurality of memory control circuits for holding said signal voltage in response to said scanning signal to control driving of said driving elements based on said held signal voltage,

wherein said memory control circuit samples and holds said signal voltage in said sampling period; and

wherein a voltage applied to said driving elements in a sampling period is lower than a voltage in a write period.

7. An image display apparatus according to claim 6, wherein said driving elements are non-conductive in said sampling period.

8. An image display apparatus according to claim 6, wherein said memory control circuit comprises:

a main driving switch element responsive to said scanning signal to conduct for sampling said signal voltage; and

a sampling capacitor for holding the signal voltage sampled by said main sampling switch element.

9. An image display apparatus according to claim 6, wherein said memory control circuit comprises:

a main driving switch element responsive to said scanning signal to conduct for sampling said signal voltage;

a sampling capacitor for holding the signal voltage sampled by said main sampling switch element; and

an auxiliary driving switch element responsive to said scanning signal to conduct for connecting one end of said sampling capacitor to a common electrode.

10. An image display apparatus according to claim 6, wherein said current driven electro-optical display elements comprise organic LEDs.

11. An image display apparatus comprising:  
a plurality of scanning wires arranged in an image display region for transmitting a scanning signal;  
a plurality of signal wires arranged to intersect with said plurality of scanning wires in said image display region for transmitting a signal voltage;  
a plurality of current driven electro-optical display elements arranged in a pixel region which is surrounded by said scanning wires and said signal wires connected to a common power supply;  
a plurality of driving elements arranged in said pixel region connected with said electro-optical display elements;  
a plurality of memory control circuits for holding said signal voltage in response to said scanning signal to control driving of said driving elements based on said held signal voltage;  
a power supply control element for controlling electric power supplied from said common power supply to said driving elements, wherein said memory control circuit samples and holds said signal voltage in said sampling period; and  
the electric power supplied to said driving elements in a sampling period is lower than the electric power in a write period.

12. An image display apparatus according to claim 11, wherein said memory control circuit comprises:  
a main driving switch element responsive to said scanning signal to conduct for sampling said signal voltage; and

a sampling capacitor for holding the signal voltage sampled by said main sampling switch element.

13. An image display apparatus according to claim 11, wherein said memory control circuit comprises:

a main driving switch element responsive to said scanning signal to conduct for sampling said signal voltage;

a sampling capacitor for holding the signal voltage sampled by said main sampling switch element; and

an auxiliary driving switch element responsive to said scanning signal to conduct for connecting one end of said sampling capacitor to a common electrode.

14. An image display apparatus according to claim 11, wherein said current driven electro-optical display elements comprise organic LEDs.